REMARKS

Favorable reconsideration of the application is respectfully requested in light of the amendments and remarks herein.

Claims 1-13 are pending in this application. By the present Amendment, Claim 1 is amended for clarity. A proposed drawing change under separate cover accompanies this amendment as requested in the Office Action.

Claims 1-6 were rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 5,878,033 ("Mouly") in view of U.S. Patent No. 6,067,566 ("Moline"). The remaining claims were rejected under §103 over the Mouly/Moline combination in further view of the Cheng , Boyle or Lindholm patents. Applicants respectfully submit that all claims in this application, at least in the form presented herein, are patentably distinguishable from the cited references for at least the following reasons:

Claim 1, for example, claims the following:

> "A method for determining access times of repeatedly broadcast objects in a broadcast channel using a unidirectional communication scheme in order to transmit the broadcast objects from a server side to a receiver side, characterized in that the broadcast object includes a header defining a repetition distance which is the distance between the completed transmission of the broadcast object and **its next repetition, and a next reception point in time of said broadcast object is calculated from a current time value and said repetition distance**." (emphasis added)

It is contended, first, that neither Mouly nor Moline teaches or suggests the aspect of Applicants' invention in which *"a next reception point in time of said broadcast object is calculated from a current time value and said repetition distance."* The Office Action did not state whether Mouly or Moline (or both) is believed to teach this feature. In any event, Applicants contend that none of the mentioned portions in Mouly or Moline teaches or suggests

this calculation. If the Examiner believes otherwise, it is requested that the Examiner identify the specific portion of the reference(s) that discloses this concept.

Further, the position in the Office Action relating to the claimed "repetition distance" was that Mouly does not explicitly teach a broadcast object including a header defining a repetition distance, but in the same field of endeavor, Moline teaches defining a repetition distance at col. 2, lines 49-62.

Applicants respectfully traverse the above-noted assertion. It is submitted that Moline: 1) is not in the same field of endeavor as the invention or the Mouly field (as will be explained below); and 2) Moline does not teach a header with a repetition distance as defined in Applicants' claims. Col. 2, lines 49-62 of Moline reads as follows:

> "MIDI file 103 has a header 104 which contains information such as the number of tracks. The MIDI file also contains at least one track 105. A given track i in such a file is indicated hereinafter by 105(i). Each track 105(i) contains a sequence of events 106. Each event 106(j) has two parts: an event message 117 and an elapsed time descriptor 119. The elapsed time descriptor indicates the time that is to elapse between the preceding event 106(j-l) and event 106(j). As can be seen from the foregoing, a given event 106's position in file 103 may be indicated by the index of its track and its own index in the track. Event 106(i, j) is thus event j in track i." (emphasis added)

The Office Action did not specify which parameter in the MIDI header meets the claimed repetition distance; however, it is assumed that the Examiner was referring to the "elapsed time descriptor 119." Applicants contend that Moline's descriptor 119 does not define *a repetition distance which is the distance between the completed transmission of the broadcast object and its next repetition*. Rather, the elapsed time descriptor 119 indicates the elapsed time between two different events, i.e., the preceding event 106(j-1) and the current event 106(j). There is no indication in the cited passage of Moline regarding any event that is to be repeatedly broadcast, or any way to indicate a distance between the completed transmission of the event and its next

repetition. Indeed, it is contended that the Moline disclosure is not concerned in any way with handling repeatedly broadcast objects.

In addition, the Office Action on page 2 stated the following in connection with the Mouly patent: "Repetition distance, which is the distance between the completed transmission of the broadcast object and its next repetition (col. 4, lines 60-67 & col. 5, lines 1-5)." As best understood by Applicants' representative, it appears that the Examiner is asserting that Mouly discloses the concept of "repetition distance." Applicants respectfully traverse this position. Col. 4, line 60 et seq. of Mouly pertains to Table V (relating to the content of a "schedule message") and reads as follows:

> "The format is the same as that of table III, except that the cue appearing at the field for each broadcast consists either of the category cue if the broadcast is not a repetition of a message already broadcast during the period (second bit =0), or of the sequence number of an earlier broadcast of the message in question during the period if this is a repetition (second bit =1). It will be noted that significance of the first bit of the fields whose second bit has the value 1 may be changed without losing information, since the sequence number which follows makes it possible to fetch from the start of the field corresponding to this number the bit indicating whether the message in question has been broadcast during the preceding schedule period." (emphasis added)

Applicants submit that the above-quoted material does not pertain to a distance between a completed transmission of a broadcast object and its next repetition. Rather, the passage deals with the issue of whether a currently broadcast message is, or is not, a repetition of a previous broadcast. Accordingly, this passage of Mouly is not relevant to Applicants' invention.

Accordingly, in light of the above deficiencies in the cited references with respect to Applicants' claims, even if Mouly and Moline were to be somehow combined, the proposed combination would still lack several essential elements of Applicants' claims. As a consequence, the proposed combination cannot render Applicants' claims obvious under §103.

The Moline Patent is Non-Analogous Art

It is further contended that the Moline reference is non-analogous art to the present invention, and therefore cannot be properly applied to reject Applicants' claims. It is well established that non-analogous art cannot be considered pertinent prior art under 35 U.S.C. 103. *See in re Pagliaro*, 210 USPQ at 892 (CCPA 1981). The determination as to whether a reference is from a nonanalogous art is two fold. First, it must be decided if the reference is within the field of the inventor's endeavor. If it is not, it must be determined whether the reference is reasonably pertinent to the particular problem with which the inventor was involved. *See In re Wood*, 599 F.2d 1032, 1036, 202 USPQ 171, 174 (CCPA 1979). In the case of *In re Clay*, 966 F.2d 656, 23 USPQ2d 1058 (Fed.Cir. 1992) the court held:

> "A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals logically would have commended itself to an inventor's attention in considering the problem."

In the present case, the Moline patent does not satisfy the above well established test of a reference falling into the category of analogous art. First, Moline is not within the field of the present inventors' endeavor. The present invention relates to a method for determining access times of repeatedly broadcast objects in a broadcast channel using a unidirectional communication scheme. By contrast, Moline relates to distributing live performances on MIDI (Musical Instrument Digital Interface) devices via a non-real-time network protocol, such as the Internet protocol. Evidencing the different fields between the Moline patent and the Mouly patent applied in combination, Moline is classified by the USPTO in U.S. classes 709 and 345; whereas Mouly is classified in classes 370 and 455, defined as follows:

Class 709 (Moline): Electrical computers and digital processing systems: multiple computer of process coordinating.

Class 345 (Moline): Computer graphics processing, operator interface processing, and selective visual display systems.

Class 370 (Mouly): Multiplex communications.

Class 455 (Mouly): Telecommunications.

Accordingly, Moline is neither within the field of the present inventors' endeavor, nor is it within the field of the Mouly reference applied in combination.

Secondly, Moline is not reasonably pertinent to the particular problem with which the inventor was involved, thus failing the second prong of the test. Moline deals with the problems of transmitting a live broadcast in a non-real-time network protocol such as the TCP/IP protocol. On the other hand, the present invention is directed to the problem of determining access times o of a repeatedly broadcast object in a broadcast channel using a unidirectional communication scheme. It is clear that the matter with which Moline deals would not logically have commended itself to the present inventors' attention in considering the problem solved by the present invention.

Therefore, as Moline fails both prongs of the analogous art test, Moline is non-analogous art to the present invention and cannot be properly applied in an obviousness analysis.

No Suggestion to Combine Mouly and Moline

It is well established that when a rejection depends on a combination of references, there must be some teaching, suggestion or motivation to combine the references. *See In re Rouffet*, 149 F.3d 1350, 47 USPQ 2d 1453 (Fed.Cir.1998). To prevent the use of hindsight, the examiner

is required to show a motivation to combine the references that create the case of obviousness. In other words, the examiner must show reasons that the skilled artisan, confronted with the same problems as the inventor and with no knowledge of the claimed invention, would select the elements from the cited prior art references for combination in the manner claimed. *Id* at 1357. Further, in *Winner Int'l Royalty Corp. v. Wang*, 202 F.3d 1340 (January 27, 2000), *reh 'g en banc denied* (March 6, 2000), *cert. denied,* 120 S. Ct. 2679 (U.S. 2000), it was held that:

> "Although a reference need not expressly teach that the disclosure contained therein should be combined with another, the showing of combinability, in whatever form, must nevertheless be 'clear and particular.'" (emphasis added).

It is submitted that the Examiner has not set forth a clear and particular showing of the combinability of Mouly and Moline. Significantly, Mouly relates to a TDMA (time division multiple access) radio network. On the other hand, Moline relates to transmitting a live broadcast over an entirely different protocol, primarily the TCP/IP network protocol. There is no suggestion in Moline (nor has the Examiner indicated a suggestion in any other reference) to utilize Moline's technique in a TDMA system as taught by Mouly. Accordingly, the proposed combination must fail for this additional reason. It is noted that the purported reason to combine the references set forth in the Office Action on page 3, paragraph 8, is illogical, i.e., that "[Mouly] does not go into details of the data addressing as it is obvious in networking technology in order to send packet to their destination a header is required otherwise it would not be possible to sent them. Thus Mouly-Moline discloses the header information." Note that the Mouly system is based on TDMA which is not a packet-switched type system as the Examiner appears to be implying.

Conclusion

In light of the foregoing analysis, Claim 1 and the claims depending therefrom are patentably distinguishable over the proposed combination of Mouly and Moline.

It is noted that the dependent claims 2-13 in this application are patentable over the cited references based at least upon their dependencies from Claim 1. The Cheng , Boyle and Lindholm patents, cited to meet certain features of various dependent claims, do not cure the deficiencies of Mouly and Moline with respect to Claim 1. Thus, whether or not these references do disclose features in Claims 2-13 is not dispositive of the patentability of these claims based at least upon their dependencies from Claim 1.

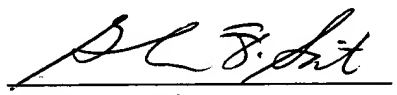
In view of the foregoing, entry of this amendment, and the allowance of this application with Claims 1-13 are respectfully requested.

In regard to the claim(s) amended herein, it is submitted that these claim(s), as originally presented, are patentably distinct over the prior art cited by the examiner, and that these claim(s) were in full compliance with the requirements of 35 U.S.C. 112. Changes to these claim(s), as presented herein, are not made for the purpose of patentability within the meaning of 35 U.S.C. §§101, 102, 103 or 112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicant is entitled.

Attached hereto is a marked-up version of the changes made to the claims and specification by the current amendment. The attached page is captioned **"Version With Markings to Show Changes Made."**

In the event that additional cooperation in this case may be helpful to complete its prosecution, the Examiner is cordially invited to contact Applicant's representative at the telephone number written below.

Respectfully submitted,
FROMMER LAWRENCE & HAUG LLP

By: 

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Version With Markings to Show Changes Made

IN THE SPECIFICATION:

The first full paragraph on page 2 has been amended as follows:

--The present invention relates to a method for determining access times of repeatedly broadcast objects in a broadcast channel using [an] a unidirectional communication scheme in order to transmit the broadcast objects from a server side to a receiver side.--

The third full paragraph on page 5 has been amended as follows:

--A parameter called repetition distance R(X) is defined which is transmitted with each object X. It specifies the distance between the completed transmission of the object X and its next repetition, e.g. object A_{n1} has a repetition distance which is represented by $R(A_{n1})$. Although the repetition distance defines the distance between repetitions of objects there is no restriction that the content of objects is not allowed to change or that the size [have] has to remain unchanged. Also the broadcast cycle does not have to be static. The repetition distance just defines the distance between two objects, but the value of the repetition distance can change with each transmitted object.--

The first, second, third, fourth and fifth full paragraphs on page 9 have been amended as follows:

--The calculation of the repetition distance (Figure 5) starts with a loop iterating over all segments of the broadcast cycle in transmission order (1..m) (step S10). The parameter i references the current segment. The first block inside the loop determines the object the current segment is belonging to and stores its index in the parameter index (step S20).

Index references the object in the parameter object sequence. After that the repetition distance of this object is stored in a parameter "repetition distance".

In the next block (step S30) the repetition distance is tested if it is unequal to zero, which means that the repetition distance already has been calculated in an iteration step before. In this case the next segment can be processed.

If the repetition distance is equal to zero the repetition distance of the current object is calculated in three steps. First, a search for the last segment of the current object (step S40, detailed in Figure 6) is performed. Second, the next segment (step S50, detailed in Figure 7) is achieved and third the repetition distance is calculated from this segment to the last segment of the next repetition of the current object (step S60, detailed in Figure 8). The parameter i is then incremented in step S70.

The first step S40 is done as follows (Figure 6). A start is performed with the currently processed segment of the main loop which is referenced by i and its value is stored in paragraph j (step S41). In the next block (step S42) a loop condition is tested. In case that the segment referenced by j is not a last segment or the segment is belonging to another object as referenced by parameter "ObjectIndex" the last segment of the current object is not found and the next segment must be tested. Therefore the segment index j is increased by one (step S45) in case that the last segment of the cycle has not been reached (as determined in step S43). Otherwise the procedure goes back to the first segment of the sequence, which is expressed by setting the parameter j to one (step S44).

In the second step S50 (Figure 7) the segment position j is set to the segment following the last segment of current object. This is done by increasing j by one in case that the last segment of the cycle has not been reached and otherwise the procedure turns back to the first segment (steps S43-S45).--

The first and second full paragraphs on page 10 have been amended as follows:

--[In] The third step S60 (Figure 8) calculates the repetition distance of the current object by addition of the segment sizes of all segments from the segment referenced by j and the last segment of the next repetition of the current object. In the first block the parameter "repetition distance" is set to zero (step S61). After that the segment size of the segment referenced by j is added to the repetition distance parameter (step S62). In the third block (step S63) it is looped as long as the segment that is referenced by j is not a last segment or the segment is belonging to an object with another Id. The latter case means that the segment is not belonging to the same object or not to a repetition of this object. If the loop is entered the segment index is increased by one (step S66) in case that the last segment of the cycle has not been reached (as determined in step S64). Otherwise the procedure goes back to the first segment of the sequence, which is expressed by setting the parameter j to one (step S65). Then the segment size of the segment referenced by j is added to the repetition distance (step S67) and the iteration step is finished (block S68).

In the case of encoding the repetition distance as a value reflecting the amount of data transmitted between two repetitions of an object the calculation has been finished at this

point and the value is stored in the "repetition distance" parameter of the currently processed object (step S69). In the case of encoding the repetition distance as a time-based value the parameter must be divided by the bitrate allocated for the broadcast cycle and afterwards the value is stored in the "repetition distance" parameter of the currently processed object. The last block of Figure 8 must be exchanged by the block S69' shown in Figure 9 for the latter case.--

The last full paragraph on page 13 has been amended as follows:

--The action is initiated by a request for an object identified by its Id (Request Object (Id)). In the first step S102 the next reception point in time (RT) is retrieved and stored. After that the current time value is obtained and stored in CT (step S104). The remaining time R is calculated in step S106 as the difference of RT and CT. The result is the maximum value for a progress indicator and can be presented to the user in step S108. In order to indicate the progress of reception the progress indicator has to be updated in certain intervals. Therefore a timer can be started (step S110) with an appropriate time out value, e.g. one second. After that a request for the object is made (step S112) at the object access block 20.--

The first and second full paragraphs on page 14 have been amended as follows:

--The next action is initiated by the time outs of the timer 22 (Notify Time Out). With each time out the remaining time for the reception R is calculated from the reception point in time (RT) and the current time value (CT). The time value is going on and the

remaining time R becomes smaller. After that the progress indicator is updated with the new value. (Steps S102' to S108'.)

It should be noted that "time out" will be initiated several times before the reception of the object is indicated (notify object reception). Then the timer has to be stopped (step S120) in order to stop updating the progress indicator. After that the object is presented to the user (step S122).--

In the Claims:

Claim 1 has been amended as follows:

D1

--1. (Amended) A method for determining access times of repeatedly broadcast objects in a broadcast channel using [an] a unidirectional communication scheme in order to transmit the broadcast objects from a server side to a receiver side, characterized in that the broadcast object includes a header defining a repetition distance which is the distance between the completed transmission of the broadcast object and its next repetition, and a next reception point in time of said broadcast object[s] is calculated from a current time value and said repetition distance.--